

REMARKS

I. Summary of the Office Action

Claims 1-31 are pending in the application. The Examiner has rejected claims 1-4, 6-12, 14-16, 18-21, 24 and 27-31 under 35 U.S.C. §103(a), asserting that such claims are obvious over U.S. Patent Application Publication No. 2003/0069975 to Abjanic et al. ("Abjanic"). The Examiner has rejected claims 5, 13, 17, 22, 23, 25 and 26 under Section 103(a) as being unpatentable over the cited Harold and LaFore articles. Further, the Examiner has rejected claims 1-31 under 35 U.S.C. §112.

II. Summary of this Reply

In this Reply, claims 1-7, 9, 11, 13, 14, 15-25 and 27-31 are amended; claims 8 and 10 are canceled; new claims 32 and 33 are added. No new matter is added. The specification is amended herein to address the objections noted by the Examiner.

III. U.S. Patent Application Publication No. 2003/0069975 to Abjanic et al.

Abjanic discloses a network apparatus such as a content based switch. In one embodiment, the switch is capable of transforming a message from a first format to a second format. See Abstract. In particular, the switch may be capable of transforming documents from one tag-based XML language to another tag-based XML language, such as CXML or CBL (Paragraph 69), or between EDI or other non-XML languages and XML languages (Paragraph 72).

IV. Response to 103 Rejections

The Examiner has rejected claims 1-31 under 35 U.S.C. §103(a), asserting obviousness over Abjanic and/or additional cited art. Claims 8 and 10 have been canceled.

A section 103 rejection is proper only if all claim limitations are taught or suggested by the prior art. MPEP § 2143.03.

Claims 1-13, 32 and 33

As recognized in Abjanic:

XML does not define a fixed set of tags, but rather, only defines the syntax or structured format through which users can define their own set of tags or their own XML based language. In fact there are many different XML-based languages in use, each having a unique set of tags that define what elements should be provided to comply with that XML language. Paragraph 68.

As examples of such XML-variant languages, Abjanic cites BizTalk, CXML, CBL, and WML, stating "each of these XML-based languages includes a different or unique set of tags." Paragraph 69.

Amended claim 1 recites "converting said input document encoded in XML to an output document encoded in a machine-oriented extensible markup language ("mXML")." As noted on page 6 of the Action, Abjanic does not disclose any use of mXML.

As defined in the specification, "XML" includes various tag-based XML languages. See page 4, lines 1-11. As further defined in the specification, "mXML" is a particular variant of XML that is unlike other conventional XML variant languages in that it is not merely another set of human friendly/human readable tags including human

readable words. Instead, it is a particular type of notation designed for efficient processing by computers, software, etc. It is unlike mere XML variant languages that use human readable tags. See page 5, line 9-page 6, line 12. Contrary to the Examiner's assertion on page 6 of the Action, mXML is not merely another derivative of XML.

Claim 1 is amended herein to emphasize the efficiently-processable characteristic of mXML, which is a distinction from the tag-based XML languages disclosed in Abjanic. More specifically, amended claim 1 recites that the "output document encoded in mXML is capable of being processed more efficiently than the input document encoded in XML."

Further, it would not have been obvious at the time of the invention to implement the teachings of Abjanic using mXML. Abjanic discloses transformation or conversion for the sole purpose of compatibility. For example, as noted in Abjanic, "a client sending data using CXML will not be able to properly communicate with the processing node or server that expects to receive data only provided according to CBL."

Paragraph 69. As further noted in Abjanic, such a translation or transformation function is provided "to allow clients and servers to communicate with each other where different data formats are involved." Paragraph 72. As further noted in Abjanic, such transformation will occur "as required" and when "the data within the packet(s) needs to be transformed."

Accordingly, Abjanic discloses the use of such a transformation for the sole purpose of enabling compatibility, i.e., for the purpose of enabling communication where communication would otherwise be impossible. In contrast, the present

invention provides for "converting said input document encoded in XML to an output document encoded in a machine-oriented extensible markup language ("mXML"), said output document encoded in mXML being capable of being processed more efficiently than said input document encoded in XML." Abjanic provides no teaching or suggestion whatsoever of any conversion of documents for the purpose of realizing processing efficiency.

Accordingly, in the context of Abjanic, if a first node is capable of processing documents encoded in XML, and a second node is also capable of processing documents encoded in XML, there is no motivation whatsoever in Abjanic to convert the XML document before transmission from the first node to the second node, because the languages at each node are compatible and no transformation is "required" or "needed" to enable communication between the first and second nodes. See Paragraphs 69, 72 and 74. This is stated clearly in Abjanic, which states that when a:

message having data . . . that is already in a format that is compatible with the receiving node . . . no transformation is necessary. Paragraph 75.

Thus, Abjanic teaches away from conversion to another language when compatibility is already ensured. In contrast, in accordance with the claimed invention, for an input document in XML and a node compatible with both XML and mXML, the input document will be converted to the mXML language and transmitted in the mXML language to achieve processing efficiencies even though the node compatible is with XML. This is neither taught nor suggested by Abjanic.

Claims 2-13 depend from claim 1 and are likewise patentable. Additionally, claim 4 recites " referencing a datastore, said datastore storing data identifying a

plurality of targets and indicating whether each of said plurality of targets is capable of processing documents encoded in mXML." Such a datastore is neither taught nor suggested by Abjanic. In contrast, Abjanic discloses sending of a request and response to determine whether any transformation is required for compatibility purposes, and that determination is apparently made by examining the response.

Paragraph 74.

New claims 32 and 33 depend from claim 1 and are likewise patentable. Additionally, claim 32 recites that the "output [mXML] document is encoded in an array notation." Such array notation is clearly distinguishable from the XML variant languages disclosed in Abjanic. Such use of array notation is neither taught nor suggested by Abjanic. See application, page 16, lines 8-14.

Claim 33 recites that the "input document encoded in XML includes tags that include human language words," and that the "output document encoded in mXML does not include any tags that include human language words." This emphasizes an exemplary characteristic of mXML notation that is clearly distinguishable from any of the other XML variant languages disclosed in Abjanic, and that is neither taught nor suggested by Abjanic. See application, page 5, line 9 - page 6, line 2.

For at least these reasons, reconsideration and withdrawal of the rejections of claim 1-13, and allowance of new claims 32 and 33, are requested respectfully.

Claims 14-26

Independent claim 14 is directed to a "method for processing an input document encoded in a machine-oriented extensible markup language ("mXML"). Independent

claim 14 is amended herein to recite "documents encoded in mXML excluding tags that include human language words", and to thereby emphasize a particular nature of documents encoded in mXML. Accordingly, claim 14 is believed patentable for reasons similar to those set forth above for claims 1 and 33.

Claims 15-20 depend from claim 14 and are likewise patentable. In addition, claim 16 include recitations similar to those of claim 4 and is likewise patentable for the reasons set forth above.

Claims 21-26 are patentable for similar reasons.

For at least these reasons, reconsideration and withdrawal of the rejections of claim 14-26 are requested respectfully.

Claims 27-31

Independent claim 27 is directed to a "method for processing an input document" that involves "determining whether said input document will be next routed to a target which is capable of processing documents encoded in a machine-oriented extensible markup language ("mXML"), said input document encoded in mXML being capable of being processed more efficiently than said input document." As discussed above, this is neither taught nor suggested by Abjanic.

It is again emphasized that the claimed method will provide a very different result than Abjanic for a first node capable of processing both XML and mXML documents, and a second node capable of processing both XML and mXML documents. More specifically, according to Abjanic, an XML document received by the first node will be transmitted to the second node in XML, without transformation/conversion. In contrast,

the present invention provides that an XML document received by the first node will be converted to mXML and be transmitted to the second node in mXML, thereby allowing for processing efficiency. This is neither taught nor suggested by Abjanic. Accordingly, claim 27 is patentable for reasons similar to those set forth above for claim 1.

Claims 28-31 depend from claim 27 are likewise patentable. In addition, claim 31 includes recitations similar to those of claim 4 and is likewise patentable for the reasons set forth above.


For at least these reasons, reconsideration and withdrawal of the rejections of claim 27-31 are requested respectfully.

CONCLUSION

In view of the foregoing amendments and remarks, Applicant believes claims 1-7, 9 and 11-33 to be patentable and the application to be in condition for allowance, and requests respectfully issuance of a Notice of Allowance. If any issues remain, the undersigned requests a telephone interview prior to the issuance of an action.

Respectfully submitted,

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